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10/848,831	05/19/2004	James F. Bredt	ZCO-100	4783

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EXAMINER	
AHMED, SHEEBA	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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1. The Amendment After Final submitted on June 16, 2008 has been entered in the above-identified application however does not place the application in condition for allowance.

Applicants traverse the rejection of independent claim 82 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,780,368 to Liu et al. ("Liu") and submit that Liu does not apply at least one of an ultraviolet light, a visible light, or an electron beam on the printed layer to induce a non-aqueous fluid to solidify. However, as previously pointed out, the Examiner disagrees. Liu specifically discloses a freeform fabrication method for fabricating a 3-D multi-material or multi-color object from successive layers of a primary body-building powder, at least a modifier material and a binder powder wherein energy means (heat, ultra violet light, electron beam, ion beam, plasma, microwave, X-ray, Gamma ray, or a combination thereof) are applied to fuse the binder powder, allowing the resulting fused binder fluid to permeate downward through the first layer of primary body-building material for bonding and consolidating the particles in the first layer to form a first cross-section of the object or wherein the binder powder includes a lower-melting material that can be readily fused to become a fluid. Once permeating through a layer of primary body-building powder material for providing bridges between particles, the binder fluid can be cooled down to below the melting point of the binder material and be solidified. If the binder contains a photo-curable adhesive composition, the pre-heat energy intensity and the energy of the imposing light source (heat and light constituting the energy means) should be provided in such a fashion that successive layers can

be affixed together to form a unitary body of the 3-D object. Hence, Liu teaches applying at least one of an ultraviolet light, a visible light, or an electron beam on the printed layer to induce a non-aqueous fluid to solidify and thus meets the limitations of claim 82.

Applicants further traverse the rejection of claims 76, 78, 80, and 83 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,649,077 to Lauchenauer ("Lauchenauer") and submit that Lauchenauer appears to disclose a heat activatable adhesive formed from at least two components, each in the form of discrete flowable particles but does not teach or suggest the application of a fluid to a film of a loose and free-flowing particulate mixture, as recited in independent method claims 76, 78, and 80. Applicants further state that Lauchenauer appears to mention fluids only with respect to the prior art, in the context of liquid adhesives being used to join two layers of a composite sheet material. Again the Examiner disagrees. Lauchenauer disclose a heat activatable adhesive formed from at least two components each in the form of discrete, flowable particles which are capable of adhering in abutment of one particle with another wherein mixture incorporates an auxiliary agent capable of strongly swelling or ***even dissolving at least one of the interacting components*** (See Column 5, lines 11-25***)*** and hence meet the limitation of applying a fluid that at least partially dissolves the adhesive particles. Furthermore, the Examiner would like to point out that the claims recite the application of a fluid and not a liquid. A fluid can be a liquid or a gas.

Applicants traverse the rejection of claims 1, 2, 4, 5, 7, 9 - 11, 13 - 19, and 22 - 24 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,061,825 to Counsell et al. ("Counsell") and submit that Counsell does not teach or suggest a loose and free-flowing particulate mixture including a thermoplastic particulate material and an adhesive particulate material, as required by independent claim 1. Rather, the Applicants argue that Counsell discloses a cementious composition that may include one cement, a non- water-sensitive polymeric binder, and a water-sensitive additive. However, as previously pointed out, Counsell et al. discloses water-activatible tapes comprising a substrate of fibrous or foamed plastics material impregnated or coated with a water-reactive cementitious composition which is reactive with water to form a set mass, the composition containing at least one cement, especially Portland cement, a ***non-water sensitive polymeric binder***, such as a natural or synthetic rubber, and a water-sensitive additive which is compatible with the polymeric binder and is sufficiently water-sensitive to at least swell in contact with water (See Abstract). Such binders include polyolefins, polyvinyl ethers, polyvinyl acetate, polyvinyl alcohol, polyvinyl butyrates, polyamides, polyacrylates, polymethacrylates, polystyrene, ABS, chlorinated PVC, polyvinylidene chloride, chlorinated natural rubber, polysulphide, silicones, polyesters, unsaturated polyesters, epoxide resins, bitumens and asphalts and drying oil based materials such as alkyd resins. Such polymers or copolymers may be used separately or in admixture with two or more polymers or additional modifying agents.

Hence, the above rejections are maintained.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEEBA AHMED whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sheeba Ahmed/
Primary Examiner, Art Unit 1794